

Abstract

Methods and apparatus for direct coronary revascularization wherein a transmyocardial passageway is formed between a chamber of the heart and a coronary blood vessel to permit blood to flow therebetween. In some embodiments, the transmyocardial passageway is formed between a chamber of the heart and a coronary vein. The invention includes unstented transmyocardial passageways, as well as transmyocardial passageways wherein protrusive stent devices extend from the transmyocardial passageway into an adjacent coronary vessel or chamber of the heart. The apparatus of the present invention include protrusive stent devices for stenting of transmyocardial passageways, intraluminal valving devices for valving of transmyocardial passageways, intracardiac valving devices for valving of transmyocardial passageways, endogenous tissue valves for valving of transmyocardial passageways, and ancillary apparatus for use in conjunction therewith.